

From the INTERNATIONAL BUREAU

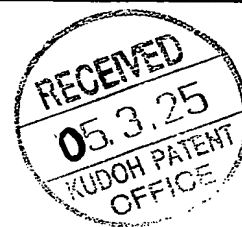
**PCT**

**NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

(PCT Rule 72.2)

To:

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JAPON



Date of mailing ( <i>day/month/year</i> ) 17 March 2005 (17.03.2005)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference 03PCFP890	
International application No. PCT/JP2003/012306	International filing date ( <i>day/month/year</i> ) 26 September 2003 (26.09.2003)
Applicant NEC CORPORATION et al	

**1. Transmittal of the translation to the applicant.**

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

**2. Transmittal of the copy of the translation to the elected Offices.**

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

AZ, CA, CH, CN, CO, EP, GH, KG, KP, KR, MK, MZ, RO, RU, TM

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, BA, BB, BG, BR, BY, BZ, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, ES, FI, GB, GD, GE, GM, HR, HU, ID, IL, IN, IS, JP, KE, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, NI, NO, NZ, OA, OM, PG, PH, PL, PT, SC, SD, SE, SG, SK, SL, SY, TJ, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

**3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).**

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

**It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.**

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 740 14 35	Authorized officer  Yoshiko Kuwahara  Facsimile No. +41 22 338 90 90
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Translation

PATENT COOPERATION TREATY

PCT/JP2003/012306



# PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 03PCFP890	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP2003/012306	International filing date (day/month/year) 26 September 2003 (26.09.2003)	Priority date (day/month/year) 30 September 2002 (30.09.2002)
International Patent Classification (IPC) or national classification and IPC H01M 8/06, 8/00, H04B 7/26		
Applicant NEC CORPORATION		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☒ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 26 September 2003 (26.09.2003)	Date of completion of this report 28 June 2004 (28.06.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP2003/012306

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed
- ☐ the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the claims:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the drawings:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	1-29	YES
	Claims		NO
Inventive step (IS)	Claims	8-10, 18-22, 24	YES
	Claims	1-7, 11-17, 23, 25-29	NO
Industrial applicability (IA)	Claims	1-29	YES
	Claims		NO

### 2. Citations and explanations

Document 1: JP, 2002-231290, A (Toyota Central Research and Development Laboratories, Inc.), 16 August, 2002 (Family: none)

Document 2: JP, 8-287941, A (Hideyori Takahashi), 01 November, 1996 (Family: none)

Document 3: JP, 2002-38295, A (Sumitomo Bakelite Co., Ltd.), 06 February, 2002 (Family: none)

Document 4: JP, 2002-159917, A (Kabushiki Kaisha Terumo Kogyo), 04 June, 2002 (Family: none)

The subject matter of claims 1-3, 5, 11-13, 15, 26-27 and 29 does not appear to involve an inventive step based on documents 1-3 cited in the ISR.

Document 1 (Par. No. [0001]) describes using a direct methanol fuel cell as a power source for mobile electronics devices such as mobile phones, and it describes (Par. Nos. [0026]-[0027]) that because while generating power, the direct methanol fuel cell produces carbon dioxide as a by-product and carbon dioxide attaches to fuel electrodes in the form of bubbles which lower output voltage, in such a case measures for promoting the emission of carbon dioxide are taken.

Because vibrating an object to which bubbles are attached to remove the bubbles is a well-known matter, as can be seen in documents 2 and 3, in the invention described in document 1, vibrating fuel electrodes when output voltage is low is found to be something that a party skilled in the art can easily achieve.

The subject matter of claims 4, 14 and 28 does not appear to involve an inventive step based on documents 1-3.

Supplying a portion of output of a fuel cell to means for generating vibration is found to be something that a party skilled in the art can appropriately achieve.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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## VI. Certain documents cited

### 1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
JP 2003-346863 A [E,X]	05.12.2003	28.05.2002	
JP 2003-346846 A [E,X]	05.12.2003	28.05.2002	

### 2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)
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**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

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**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of Box V:

The subject matter of claims 6-7 and 16-17 does not appear to involve an inventive step based on documents 1-3.

Because this examination finds that deciding how means for generating vibrations is disposed is a matter that a party skilled in the art can appropriately design, this examination also finds that providing means for generating vibration on the main body of a fuel cell and on a support body on which the fuel cell is disposed can be appropriately achieved by a party skilled in the art.

The subject matter of claims 1, 3, 5, 11, 13, 15, 23 and 25-27 does not appear to involve an inventive step based on document 1 and document 4 cited in the ISR.

Document 1 describes using a direct methanol fuel cell as a power source for mobile electronics devices, such as mobile phones; however, mobile phones, etc. have a vibration generation device as can be seen in document 4 (Par. Nos. [0001]-[0002]).

In this case, because a fuel cell and vibration generation device are present inside the chassis of a mobile phone, this examination finds that carbon dioxide generated between the fuel electrodes of a fuel cell from vibrations of the vibration generation device is removed.

The subject matter of claims 4, 14 and 28 does not appear to involve an inventive step based on documents 1 and 4.

Supplying a portion of output of a fuel cell to a vibration generation device is found to be something that a party skilled in the art can appropriately achieve.